

By Lieutenant Colonel David E. Chesser and Major Adam S. Roth

magine a unit being transformed from Code 4 (C4) (not combat ready) to Code 1 (C1) (fully combat ready) in only 152 days and then successfully executing more than 1,400 combat engineer missions in an urban environment in the span of a one-year deployment. A unit engaged by insurgent forces more than 50 times, yet never wavering in the face of the inherent dangers of combat. A unit whose Soldiers were awarded 42 Bronze Stars, 22 Purple Hearts, and 12 Army Commendation Medals for Valor and nominated for the Meritorious Unit Citation. Sounds like Audie Murphy's unit in World War II, doesn't it? Well, it isn't. This is the story of the 458th Engineer Battalion (Corps) (Wheeled), United States Army Reserve, and how its Citizen-Soldiers provided fullspectrum engineer support to the 1st Cavalry Division in the urban environment of Baghdad, Iraq, during Operation Iraqi Freedom. The purpose of this article is to share information with the Engineer Regiment to help guide other engineer units in their preparations for conducting operations in an urban environment in support of the Global War on Terrorism.

Mission Analysis and METL

he corps wheeled engineer battalion is comprised of a headquarters and headquarters company and three line companies. Each line company is comprised of a headquarters element, three sapper platoons, and an equipment and obstacle section (commonly referred to as the support platoon). The three maintenance teams (nuclear, biological,

and chemical [NBC] specialists; communications specialists; and medics assigned to the headquarters company) were attached to the line companies during the deployment, which increased their assigned strength. This personnel structure, along with the battalion's organic equipment, was ideal for stability and reconstruction operations in an urban environment.

According to the modified table of organization and equipment (MTOE), the mission of the combat corps wheeled battalion is "to increase the combat effectiveness of the corps by accomplishing mobility, countermobility, survivability, and sustainment engineering tasks." Upon mobilization in November 2003, the 458th Engineer Battalion was told by the Engineer Brigade, 1st Cavalry Division, to provide direct support to the division. We only had to look at our secondary mission "to reinforce divisional engineer units when required," to know that we were operating within doctrine. We were being pushed forward from the corps rear into the division fight on an asymmetric battlefield and immediately recognized the need to conduct a thorough mission analysis and revise our mission-essential task list (METL) for combat engineering in an urban environment. The revised METL proved invaluable in guiding the battalion to combat readiness in a minimum amount of time during postmobilization training.

During the home station phase of mobilization, the military decision-making process (MDMP) was used to refine the battalion's METL. The battalion's previous war trace alignment

July-September 2005 Engineer 11

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Report Documentation Page

Form Approved OMB No. 0704-0188 was to another major theater of operations and was geared for high-intensity conflict. After being alerted for mobilization, the battalion's senior leadership conducted a detailed mission analysis for stability and reconstruction operations. The analysis was that the battalion would not be required to perform many doctrinal engineer missions (such as emplacing or breaching minefields or supporting river-crossing operations), but would be tasked to execute several nondoctrinal missions (such as heavy rescue and route clearance with prototypal equipment). Our refined mission statement became—

"The 458th Engineer Battalion provides mobility, countermobility, survivability, and general engineering to the 1st Cavalry Division in Multinational Division (MND)-Central Baghdad in support of stability operations and support operations in order to set the conditions for coalition forces and enable them to support the progressive transfer of authority to the Iraqi people, their institutions, and a legitimate Iraqi national government."

The battalion METL was then revised, based on the new mission statement and the doctrine of Field Manual 7-1, *Battle Focused Training*.

Training

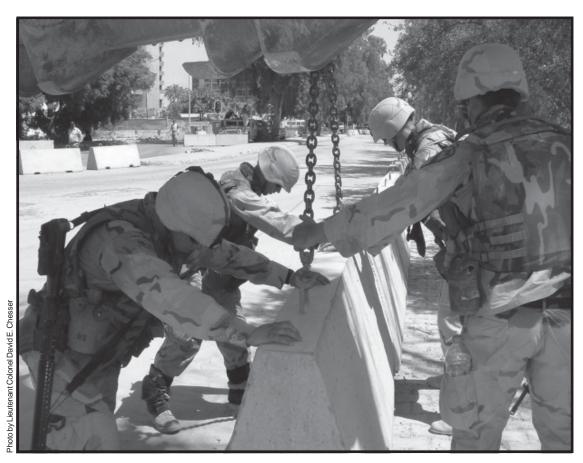
ased on a training readiness assessment of the stability and reconstruction operations METL, the battalion commander and operations staff officer (S-3) developed

a training strategy that ensured combat readiness at the conclusion of the reception, staging, onward movement, and integration (RSOI) process. Because 52 percent of assigned personnel strength was cross-leveled into the battalion within 30 days of mobilization, the strategy initially focused on individual Soldier survivability skills.

While squad leaders and platoon sergeants were executing this training and building cohesive teams, the senior leadership was developing training plans to achieve combat readiness for stability and reconstruction operations. The unit then mapped out a plan to train the additional requirements during a 25-day period of mobilization-station training to attain (METL) proficiency for deployment. This training included multiechelon training in military operations on urbanized terrain (MOUT), basic and advanced demolitions, urban search and rescue (heavy rescue), and counter-improvised explosive device (IED) operations. Our partner throughout the training process was the 3d Battalion, 315th Regiment (Training Support) (3/315th) which assumed the role of unit assistor during the mobilization process. The 458th had previously attended annual training with the 3/315th, who helped plan and execute a training strategy.

Full-Spectrum Operations

he 458th conducted a relief-in-place/transfer of authority, initially supporting the 1st Armored Division on 27 March 2004 and then the 1st Cavalry Division



Combat engineers emplace prefabricated concrete barriers in support of force protection engineering operations.

12 Engineer July-September 2005

30 days later. Our expectation was that stability and reconstruction operations would evolve into nation building, and we would be heavily engaged in general engineering in support of civil-military operations. We were wrong. By the middle of April, Mahdi's army declared war on coalition forces and the insurgency was in full swing. Stability and reconstruction operations turned into full-spectrum operations for the division. The 458th was directed to reorganize a platoon to fight as infantry. And the battalion's mission evolved into route clearance (becoming our breadand-butter mission), force protection engineering, and heavy rescue and consequence management (taking on a greater sense of urgency due to the use of vehicle-borne improvides explosive devices [VBIEDs]).

Fight as Infantry

In May 2004, the 458th was tasked by the division Engineer Brigade to reorganize a platoon to fight as infantry and attach it to the 91st Engineer Battalion to help secure a

sector of West Baghdad for 9 months. During that period, the platoon executed patrols, raids, cordon-and-search operations, IED clearance, and quick-reaction force missions as mounted and dismounted infantry. The Soldiers executed 450 combat patrols, engaging insurgents on multiple occasions, without a single serious injury. The ability of this platoon to rapidly reorganize and train and successfully execute infantry missions in a tough urban environment is a testament to the platoon's leadership and the rugged training that the corps wheeled battalion habitually executes in peacetime to be able to fight as infantry in wartime.

Route Clearance Operations

Probably the single most important engineering mission executed by the 458th Engineer Battalion was that of conducting counter-IED operations. Known as Task Force Iron Claw, the operation assured mobility within the division battlespace by finding IEDs along main and alternate supply routes and coordinating with supporting explosive ordnance teams for destruction or retrieval of the IEDs. Using prototypal equipment known as the Interim Vehicle-Mounted Mine Detection System (IVMMDS), the line platoons executed Task Force Iron Claw operations. The tactics, techniques, and procedures were continuously altered to enhance the task force's capability and survivability in an environment where 93 percent of all IEDs emplaced within Iraq were found. The primary combat system used by the task force was the mineprotected clearance vehicle (MPCV) commonly referred to as the Buffalo. The ability of the Buffalo to "interrogate" potential



Soldiers from Task Force Iron Claw perform route clearance operations.

IEDs with its articulating arm, while the crew remained protected inside the vehicle, made it invaluable. During 12 months of combat operations, Task Force Iron Claw completed 575 missions, clearing 171 IEDs over 34,000 kilometers of roadway. The task force's ability to locate and neutralize IEDs preserved combat power and assured mobility for coalition forces.

Insurgents were using the rural roads outside of Baghdad's population centers to ferry arms and forces from outlying weapons caches into the city. The routes they used were known as "rat lines." Soldiers of the 458th provided the brigade combat teams with no-notice barrier emplacement support for snap traffic control points on many occasions to interdict these rat lines. The battalion also participated in a more unconventional approach to interdicting the rat lines by using mine-clearing line charges (MICLICs). The end result was the denial of insurgent lateral maneuver.

Force Protection Engineering

Many of the forward operating bases (FOBs) constructed during Operation Iraqi Freedom had limited force protection due to the availability of barrier materials or engineers to complete force protection projects. The heavy equipment available to the battalion, coupled with the abundance of military occupational specialty 21B combat engineer Soldiers, made this mission a perfect fit. The battalion was continually employed in the heightening of force protection at FOBs and Iraqi facilities within the Task Force Baghdad area of responsibility. Anything from erecting precast concrete barriers around key facilities, filling HESCO® Bastions, constructing

July-September 2005 Engineer 13

berms around FOBs, and erecting concertina fence were all missions that the 458th Engineer Battalion performed on a daily basis. In support of force protection operations, the battalion constructed more than 19 kilometers of earthen berms and 11 kilometers of concertina fencing, emplaced 1,523 mortar bunkers and 34,071 precast concrete barriers, and filled 23,690 HESCO Bastions at 11 FOBs and numerous Iraqi government facilities to harden them against insurgent attack.

Heavy Rescue Operations

Before deploying, the 458th received the mission to provide a consequence management and heavy rescue capability as a result of weapons of mass destruction incidents within Baghdad. A heavy rescue unit was trained and equipped at the Fort McCoy Mobilization Station in Wisconsin and provided urban search and rescue and confined-space rescue on numerous occasions within the Task Force Baghdad area. (A description of this unit and its training can be found in the January-March 2005 issue of *Engineer*, page 37.)

The pinnacle achievement of the heavy rescue unit, known as Rescue One, was its actions in response to an anti-Iraqi forces bombing in the Ghazaliyah section of Baghdad on 29 December 2004. An Iraqi family was held hostage inside a three-story structure that was wired with 1,800 pounds of explosives. Once the Iraqi police arrived and opened the door to the residence, the blast devastated the entire neighborhood. Members of Rescue One, working hand-in-hand with the Iraqi first responders, saved the life of a 22-year-old Iraqi woman through a 3-hour, confined-space rescue and recovered all four of her children using confined-space rescue and heavy-equipment recovery techniques.

Support of Fallujah Offensive

In November 2004, the 458th Engineer Battalion received the mission to provide horizontal engineering support to the 2d Brigade Combat Team and the United States Marine Corps during the Fallujah Offensive. The battalion staff performed the MDMP (as it had for every mission the battalion received) and tailored a platoon-sized task force of horizontal construction assets with embedded 21B Soldiers for security. During a 2-week period, the task force constructed earthen berms around FOBs, emplaced HESCO Bastions around command and control nodes, dug in the brigade artillery battery, and constructed multiple traffic-control points.

Civic Action Projects/Humanitarian Assistance

ue to the intensity of the insurgency, the brigade combat teams frequently conducted kinetic (offensive) operations to establish control in sectors. The goal of the division commander was to eventually conduct nation-building operations. His intent was to take the AK-47s out of the hands of the insurgents and replace them with shovels, employing the insurgents in projects that would help to rebuild their nation. The negative aspect of kinetic operations was the

collateral damage that resulted, creating a need to quickly show the coalition's commitment to "making it right." The 458th Engineer Battalion's Headquarters Company was tasked to support what became known as *Operation Rhode*, and served to get the Iraqis back on their feet after kinetic operations. The headquarters company transportation section purchased, stored, and delivered "Rhode Packages" to brigade combat teams after combat operations in their sectors.

- Sustenance packages consisted of items for meeting basic nutritional needs (including rice, flour, and canned goods).
- Construction packages consisted of basic construction materials required to make repairs to damaged homes (such as lumber, nails, roofing materials, and plywood).
- Neighborhood area council packages consisted of items to help reestablish government at the local level (such as computers, office automation equipment, and basic office furniture).

This form of nation building provided coalition forces with a method of demonstrating commitment to the rebuilding of Iraq.

Summary

he 458th Engineer Battalion served with distinction during Operation Iraqi Freedom in the tough urban environment of Baghdad. The broad spectrum of missions the battalion accomplished reflects its adaptation of engineering doctrine to the contemporary operating environment, coupled with effective training and sound leadership. The flexibility of the corps wheeled structure, when combined with the versatility of the Army Reserve's Citizen-Soldiers, makes it an ideal organization for supporting divisional operations across the continuum of conflict.

Lieutenant Colonel Chesser is the commander of the 458th Engineer Battalion. He commanded a combat corps wheeled engineer company in Germany and has served in numerous staff and leadership positions. He is a graduate of the Command and General Staff College and the Sustaining Base Leadership Management Course.

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14 Engineer July-September 2005